

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OFFICE OF RESEARCH AND DEVELOPMENT **ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY** CINCINNATI, OHIO 45268

DATE:

June 16, 1982

SUBJECT:

Request for Resume

FROM:

Denis L. Foerst, Research Chemist Denisd Secretary
Organic Analyses Section

Physical and Chemical Methods Branch

T0:

Robert Leininger, Enforcement Attorney

**Enforcement Division** 

U.S. Environmental Protection Agency

Region 5

230 South Dearborn Street Chicago, Illinois 60604

Here is a copy of my resume as you requested in Minneapolis.

Enclosure: As stated

# Denis L. Foerst

Research Chemist, Physical and Chemical Methods Branch, Environmental Monitoring and Support Laboratory.

#### Education

B.S., Preprofessional Studies-Chemistry (1968), University of Notre Dame Ph.D., Organic Chemistry (1975), Miami University.

### **Experience**

## 1978 to Present

At EMSL-Cincinnati, Dr. Foerst holds responsibilities for trace organic analyses and analytical methods development in water matrices using GC/MS; HPLC-UV, FLUOR, or E Chem D; and GC-FID, ECD, or NPD. He is very familiar with the 600 series of methods and was the principal analyst for EMSL-Cincinnati in the interlaboratory studies for Method 605-benzidines, Method 609-nitroaromatics and isophorone, and Method 610-polynuclear aromatic hydrocarbons. Methods 605 and 610 are HPLC methods. During EMSL-Cincinnati's participation in the Love Canal Study, Dr. Foerst performed the GC/MS analyses for purgeable organics in sediments and soils.

# 1976 - 1978 Chemist, National Institute for Occupational Safety and Health

Prior to joining EPA, Dr. Foerst was a chemist with the Measurements Research Branch of NIOSH. He held responsibilities for analytical methods development for organic compounds in air and is the author for NIOSH Method 266-Vinylidene Chloride and NIOSH Method 278-Vinyl Acetate. Part of Dr. Foerst's responsibilities at NIOSH included generating dynamic atmospheres of organic compounds at known concentrations in order to validate the sampling parameters for these analytical methods.

## 1975 - 1976

Post doctoral experience (University of Wisconsin - Milwaukee). Dr. Foerst's postdoctoral work included synthetic organic chemistry and characterization of synthons by mass spectrometry, UV, IR, and NMR spectroscopy.

### Professional Organizations

Dr. Foerst is a member of the American Chemical Society and its Division of Chemical Health and Safety. He has served on a number of committees for the Cincinnati Chapter of the ACS.

4

#### **Publications**

Glaser, J.A., D.L. Foerst, G.D. McKee, S. Quave and W.L. Budde, "Theory and Application of Method Detection Limit - A New Performance Criterion in Environmental Analyses," Envir. Sci. Tech, received May 1981.

Foerst, D.L. "An Evaluation of the Hewlett-Packard 5993B Gas Chromatograph-Mass Spectrometer," EPA Report 600/4-81-043, U.S. Environmental Protection Agency, Cincinnati, Ohio, 1981.

Foerst, D.L. and A.W. Teass, "A Sampling and Analytical Method for Vinyl Acetate," in Analytical Techniques in Occupational Health Chemistry, D.D. Dolberg and A.W. Verstuyft, ed, Chap 9, p. 169-184, ACS Symposium Series 120, American Chemical Society, Washington, D.C., 1980.

Foerst, D.L., "A Sampling and Analytical Method for Vinylidine Chloride in Air," Am. Ind. Hyg. Assoc. J., 40, 888-893, 1979.

Grunwell, J.R., D.L. Foerst, F. Kaplan, and J. Siddiqui, "The Relative Basicity of Sulfur Containing Esters," Tetrahedron, 33, 2781 (1977).

Foerst, D.L., and J.R. Grunwell, "Mass Spectrometry of Alkenyl and Aryl Thiolacetates,"  $\underline{J}$ . Org. Chem.,  $\underline{42}$ , 3307 (1977).

Grunwell, J.R., D.L. Foerst and M.J. Sanders, "Mechanism of Thiophene Formation Upon Photolysis of Enethiol Esters," <u>J. Org. Chem.</u>, <u>42</u>, 1142 (1977).

Grunwell, J.R., and D.L. Foerst, "The Synthesis of Thiol Esters with Dicyclohexylcarbodiimide," Synth. Comm., 6, 453 (1976).

Yang, D., D.L. Foerst, J. Oehldrich and J.M. Cook, "Reaction of 1,2- and 1,3-Dicarbonyl Compounds With Dimethyl B-keto glutarate, I- Synthesis of Methyl 5,6,7,8-Tetrahydro-5-oxocoumarin 4(3H), -acetate.",  $\underline{J}$ . Org. Chem.,  $\underline{41}$ , 743 (1976).